What is claimed is:

1. A cathode-ray tube (CRT) having a glass envelope defined by a faceplate panel and a tubular neck, a three-color phosphor screen formed on an inner surface of the faceplate panel and an electron gun positioned in the tubular neck and facing the phosphor screen, comprising:

a tension mask configured for transverse scan affixed to a peripheral frame, wherein the tension mask has a center portion and edge portions proximate opposing ends of the tension mask, the edge portions having peripheral frequency distributions and the center portion having a central frequency distribution, wherein the central frequency distribution is greater than the peripheral frequency distributions to improve vibrational damping of the mask.

2. The cathode-ray tube (CRT) of claim 1 wherein the frequency distribution from the edge portions to the center portion is represented by a parabolic formula wherein the variational range between the frequency distribution at the center portion and the frequency distribution at the edge portions is at least 8 Hz.

3. The cathode-ray tube (CRT) of claim 2 wherein the central frequency distribution ranges from about 92 Hz to about 88 Hz and the peripheral frequency distributions range from about 76 Hz to about 84 Hz.

4. The cathode-ray tube (CRT) of claim 2 wherein the variational range is not greater than 12 Hz.

5. The cathode-ray tube (CRT) of claim 4 wherein the variational range is about 10 Hz.

6. A tension mask for a cathode-ray tube (CRT), comprising:

a peripheral frame;

a tension mask configured for transverse scan affixed to the peripheral frame and having a center portion and edge portions, the edge portions proximate two opposing ends of the tension mask, the center portion having a central frequency

distribution, the edge portions having peripheral frequency distributions wherein the central frequency distribution is greater than the peripheral frequency distributions and the frequency distribution from the edge portions to the center portion is represented by a parabolic formula wherein the variational range $\Delta$ between a peak value of the frequency distribution at the center portion and a minimum value of the frequency distribution at the edge portions is in the closed interval of about 8 Hz $\leq \Delta \leq$ 12 Hz.

7. The tension mask of claim 6 wherein the central frequency distribution ranges from about 92 Hz to about 88 Hz and the peripheral frequency distributions range ~~from about 76 Hz to about 84 Hz.~~

8. The tension mask of claim 7 wherein the central frequency distribution is about 90 Hz and the peripheral frequency distributions are about 80 Hz.

9. The tension mask of claim 6 wherein the variational range is about 10 Hz.

10. A method for improving vibrational damping in a cathode-ray tube (CRT), comprising:

fixing a tension mask configured for transverse scan to a peripheral frame such that a center portion of the tension mask has a central frequency distribution greater than peripheral frequency distributions of end portions of the tension mask.

11. The method of claim 10 wherein the frequency distribution from the edge portions to the center portion is represented by a parabolic formula and the variational range $\Delta$ between the frequency distribution at the center portion and the frequency distribution at the edge portions is at least 8 Hz.

12. The method of claim 11 wherein the variational range $\Delta$ between a peak value of the frequency distribution at the center portion and a minimum value of the

frequency distribution at the edge portions is in the closed interval of about 8 Hz $\leq \Delta \leq$ 12 Hz.

13. The method of claim 12 wherein the central frequency distribution ranges from about 92 Hz to about 88 Hz and the peripheral frequency distributions range from about 76 Hz to about 84 Hz.

14. The method of claim 12 wherein the variational range is about 10 Hz.